

REMARKS

1. Status of the Present Application

This is a full and timely response to the outstanding non-final Office Action mailed February 4, 2004 (Paper No. 3). Upon entry of this response, claims 1-28 are pending in the application. In this response, claims 1-10, 13-18, and 21-25 have been amended. Applicant respectfully requests that the amendments being filed herewith be entered and that there be reconsideration of all pending claims.

2. Rejection of Claims 1-28 under 35 U.S.C. § 103

Claims 1-28 have been rejected under § 103(a) as allegedly obvious over *Okamura* (U.S. 6,674,768) in view of *Drucker et al.* (U.S. 6,423,414). Applicant respectfully submits that these rejections have been overcome by the claim amendments made herein. It is well established at law that, for a proper rejection of a claim under 35 U.S.C. § 103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly, all elements/features/steps of the claim at issue. *See, e.g., In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. Claims 1, 9, 17, and 25

Applicants respectfully submit that claim 1, as amended, is allowable for at least the reason that the proposed combination of *Okamura* in view of *Drucker et al.* does not disclose, teach, or suggest at least the feature of a “gain adjustment element configured to adjust the gain applied to at least one of the plurality of transmit DMT carrier tones based on a predefined transmit signal spectrum associated with the at least one transmit DMT carrier tone and on a

power measurement of at least one of the received carrier tones” as recited in amended claim 1.

In addition, claim 9 as amended is allowable for at least the reason that the proposed combination does not disclose, teach, or suggest at least the feature of “adjusting the gain applied to at least one of the plurality of transmit DMT carrier tones based on a predefined transmit signal spectrum associated with the at least one transmit DMT carrier tone and on a power measurement of at least one of the received carrier tones.” Furthermore, claim 17 as amended is allowable for at least the reason that the proposed combination does not disclose, teach, or suggest at least the feature of a “means for adjusting the gain applied to at least one of the plurality of transmit DMT carrier tones based on a predefined transmit signal spectrum associated with the at least one transmit DMT carrier tone and on a power measurement of at least one of the received carrier tones.” Finally, claim 25 as amended is allowable for at least the reason that the proposed combination does not disclose, teach, or suggest at least the feature of a “means for adjusting a power level associated with each of the plurality of frequencies based on a predefined transmit signal spectrum and on a power measurement of at least one of the plurality of frequencies.”

Okamura does not disclose, teach, or suggest using at least the above-recited features of claims 1, 9, 17, and 25. *Okamura* discloses, at most, an ATU-C and an ATU-R which communicate with each other, each with a transmitter and a receiver. The transmitter of a local ATU transmits a PNS on all carrier tones. The receiver of the remote ATU receives the transmitted PNS signal. A SNR measurement section 26A in the remote ATU calculates the SNR of each carrier tone received from the local ATU. The remote ATU uses the SNR to calculate bit and gain distribution, which is transmitted to the local ATU. The transmitter of the

local ATU then uses the remotely calculated SNR when applying gain to a transmitted tone.

(Col. 2, line 2 to Col. 3, line 20.)

In contrast, Applicant's invention, as defined by claims 1, 9, 17, and 25, uses a power measurement of locally received tones to adjust the gain applied to locally transmitted tones. A transmitter "generates...transmit DMT carrier tones," "applies a gain to each DMT carrier tone" and transmits the DMT carrier tones as a symbol. A "receive amplifier" is configured to "detect the transmitted symbol." A DFT element is configured to "separate the detected symbol into a plurality of received carrier tones." A "gain adjustment element" is configured to "*adjust the gain applied to...transmit DMT carrier tones based on...a power measurement of...the received carrier tones.*" *Okamura* fails to disclose, teach, or suggest the above-described element of Applicant's claimed invention.

Drucker et al. also fails to teach, suggest or disclose at least the above-recited features of claims 1, 9, 17, and 25. *Drucker et al.* teaches, at most, a method of "providing a high bit rate DMT signal by transmitting information on low-SNR tones in parallel with either other low-SNR tones or with higher SNR tones, and coherently combining such tones at the receiver." (Col. 2, lines 27-31.) Importantly, *Drucker et al.* discusses only the DMT receiver, and not the DMT transmitter, and therefore does not teach, suggest or disclose adjusting "gain applied to at least one of the plurality of DMT transmit carrier tones" as recited in amended claims 1, 9, 17, and 25. Thus, *Drucker et al.* fails to disclose, teach, or suggest every element of Applicant's claimed invention.

Accordingly, the proposed combination of *Okamura* in view of *Drucker et al.* does not teach, suggest or disclose at least the above-described features of amended claims 1, 9, 17, and 25. Since the proposed combination does not teach, suggest or disclose at least the above-

described features, a *prima facie* case establishing an obviousness rejection by *Okamura* in view of *Drucker et al.* has not been made. Applicant respectfully submits that the amended claims 1, 9, 17, and 25 overcome the rejection, and the rejection should be withdrawn.

b. Claims 2-8, 10-16, 18-24, and 26-28

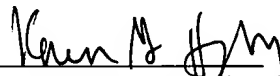
Since claims 1, 9, 17, and 25 are allowable, Applicant respectfully submits that claims 2-8, 10-16, 18-24, and 26-28 are allowable for at least the reason that each depends from an allowable claim. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988). Therefore, Applicant respectfully requests that the rejection of claims 2-8, 10-16, 18-24, and 26-28 be withdrawn.

CONCLUSION

Applicant respectfully requests that all outstanding objections and rejections be withdrawn and that this application and presently pending claims 1-28 be allowed to issue. If the Examiner has any questions or comments regarding Applicant's response, the Examiner is encouraged to telephone Applicant's undersigned counsel.

Respectfully submitted,

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